

WHAT IS CLAIMED IS:

1. A fluid flow control system for precisely controlling fluid flow from a source of fluid under pressure,

a flow path for coupling said source of fluid to a point of utilization,

5 a valve in said flow path,

a flow restrictor in said flow path,

a pressure transducer connected across said flow restrictor for measuring the pressure differential thereacross and producing a signal proportional to said pressure differential, and

10 a controller connected to receive said signal and pulse said valve at a frequency to obtain a preset target value of pressure across said flow restrictor.

2. A system of mixing two or more fluid streams comprising in combination the fluid flow control system defined in claim 1, coupled to a mixer which is also coupled to a source of a second fluid.

5 3. The system defined in claim 1 including means for inputting a flow modifying signal to said controller or for modifying the control signal due to a change in the relationship between the pressure differential across the transducer versus the flow.

10 4. The system defined in claim 2 including means for
inputting a flow modifying signal to said controller or for
modifying the control signal due to a change in the relationship
between the pressure differential across the transducer versus the
flow.

 5. A fluid flow control system for mixing fluids from two or
more sources of fluid under pressure,

 a first flow path for coupling one of said sources of a first
fluid to a point of utilization,

5 a first valve in said first flow path,

 a first flow restrictor in said flow path downstream of said
valve.

 a first pressure transducer connected across said first flow
restrictor for measuring the pressure differential thereacross and
10 producing a signal proportional to said pressure differential,

 a controller connected to receive said signal and pulse said
first valve at a frequency to obtain a preset target value of fluid
pressure across said flow restrictor,

 a first flow path coupling said flow restrictor to a fluid
15 mixer,

 said mixer coupled to a second fluid, the flow rate of which
is controlled by a second flow control means.

 means coupling said first flow path to said mixer, said mixer
constituting said point of utilization.

6. The fluid flow control system defined in claim 3 wherein said second source includes a second flow path having a second valve, a second flow restrictor and a second pressure transducer controlling a second fluid, all connected and operating as in said first flow path, and means coupling said second flow path to said mixer.

7. The system defined in claim 5 including means for inputting a flow modifying signal to said controller.

8. The system defined in claim 6 including means for inputting a flow modifying signal to said controller.